

CABLES & ASSEMBLIES

Industry Summary, Overview and Outlook

SUMMARY

China is consolidating its position as the world's largest supplier of A/V, computer and telecom cables and assemblies. Expanding production and exports in anticipation of rising demand will boost the country's global output share, which currently exceeds 70 percent. Heightened R&D spurred by efforts to broaden lineups and applications to match trends for new and upgraded interface standards will also swell overall yield in coming months.

The A/V cables and assembly sector will experience the most robust growth, driven by the widening adoption of HDMI and DisplayPort. The former dominates mainstream supply and is the top choice in high-end consumer electronics such as flat-panel TVs and digital set-top boxes. DisplayPort constitutes a smaller segment but is poised to expand as many companies gear up for manufacture on a larger scale. The adoption this November of Apple's Mini DisplayPort by the Video Electronics Standards Association augurs well for this line.

Exports from January to August 2009 dropped 38 percent from the same period last year at \$1.8 billion. But makers remain positive sales will rise as orders rebound beginning 2H09.

The following are some of the key trends in China's cables and assembly industry:

- Across all product categories, manufacturers are riding on their price advantage to boost overseas business. In the A/V cables and assembly line, for example, local models are generally quoted 30 percent less than counterparts from Japan and the US. Although many suppliers raised prices in recent months to invigorate sales, these remain lower than those from international brands.
- Cost-management programs center on boosting production scale and improving operating efficiency. More companies are also exploring local

materials. Some makers of HDMI cable assemblies are using copper-coated aluminum and steel wires instead of oxygen-free and monocrystal copper, which are more expensive.

- Product development initiatives emphasize the adoption of new standards and upgraded specifications.
- Suppliers are also increasing the data transfer rate while reducing the signal attenuation and distortion. Many will enhance the shielding design.
- Companies are keen to expand their markets in the EU. North America and the Asia-Pacific region are other key export destinations.
- Rising manufacturing costs continue to pose a challenge to China makers. Huge licensing fees and stricter overseas standards exacerbate the situation, especially for smaller enterprises.

This report covers the major types of A/V, computer, telecom and networking, and special cables and assemblies manufactured in China, including new standards such as HDMI and DisplayPort. Each product category is discussed in a separate module that details common features and functions found in mainstream models. Price, R&D trends, and materials and components used are also covered.

The Industry Overview positions China in the worldwide market and discusses growth opportunities in coming months. It identifies the factors shaping the segment, including challenges faced by makers and steps taken to overcome these hurdles and boost competitiveness further.

The majority of China's 2,000 manufacturers are based in the Pearl River Delta and Yangtze River Delta regions, which boast established supply chains for materials and third-party service providers. Anhui, Sichuan and Hubei provinces are evolving as key sourcing centers, especially for networking cables and assemblies.



INDUSTRY OVERVIEW

China, which produces more than 70 percent of the world's cables and assemblies, continues to strengthen its position as the largest supplier globally. The expanding selection comprises models for A/V, computer, telecom and networking, and niche applications, and efforts to broaden uses to extend market reach will boost the country's share further in coming years.

Manufacturers generally have a positive outlook despite stiff competition and recent sales declines brought about by the global financial crunch. Many project overall supply will rise by at least 10 percent in 2010. In the A/V cables and assembly sector, the step up to HDMI and DisplayPort is forecast to swell the line by 15 percent. Those offering IEEE 1394 types are planning as much as 30 percent output increase.

Companies' efforts to meet users' demand for faster data rates, sharper images and higher bandwidth are providing additional momentum, speeding up R&D and broadening lineups further. Besides the ongoing shift to HDMI and DisplayPort and their variants, many suppliers are exploring emerging categories or upgraded specifications. Manufacturers of networking cables and assemblies, for instance, are looking to develop Cat 7, STP, and security and mini coaxial configurations.

USB 3.0 and IEEE 1394b are on the drawing boards of computer cable suppliers. China's Ministry of Information Industry enacted its own standard for mobile phone charging in 2006 that pushes for the mini USB, another growth driver. With micro USB having been recently announced by the EU as the region's mobile phone charger standard, the MII is expected to support this version as well.

Across the different product categories, companies leverage their price advantage to boost competitiveness. China-made A/V cables and assemblies are generally

priced 30 percent less than similar models from Japan and the US. In the D/D-sub, RCA and IEEE 1394 sectors, quotes are 5 to 10 percent lower than foreign counterparts. To bolster this edge further, several suppliers of RCA versions reduced prices by 20 to 30 percent in recent months.

Many complement low quotes with improved aftersales service to secure more orders. Several have shortened delivery time. Makers of IEEE 1394 variants have cut the lead time to seven days from 15, and a few are even thinking of doing it within five.

An export-driven business model left most companies vulnerable to the effects of the global economic downturn. Outbound shipments from January to August 2009 totaled \$1.8 billion, a 38 percent drop from the \$2.5 billion posted during the same period the previous year, according to China customs. But with orders rebounding in 2H09, many expect a rise of at least 10 percent in overseas revenue this year. Moreover, makers' mixed lineup is enabling them to offset losses in some cable types with upbeat sales in others.

In general, suppliers are banking on the robust consumer electronics, computer and telecom sectors worldwide to sustain growth. Besides broadening applications, they are penetrating new overseas destinations such as India and Russia to ensure healthy margins. Under efforts to meet output and export targets, capacity expansion programs are emphasized. Several have set up new factories, while others are raising capital expenditure and procuring advanced manufacturing and testing equipment.

Growth areas

The A/V cables and assembly segment, which accounts for more than 70 percent of the worldwide industry, will remain the most bullish sector in China. The momentum is mainly driven by the increasing popularity of HDMI and DisplayPort, output of

which is forecast to continue climbing. Products supporting the first standard will rise 30 percent this year and next. DisplayPort-compatible devices will hit 263.3 million units by 2012, according to iSuppli, from zero in 2007.

Manufacturers project HDMI and DisplayPort will rapidly gain control of the consumer electronics and computer sectors, respectively, and eventually displace traditional A/V cables and assemblies. Many estimate at least 30 to 40 percent output increase for both types this year. The former is establishing a foothold in the high-end consumer electronics segment, specifically flat-panel TVs and digital set-top boxes or STBs. DisplayPort, on the other hand, is positioning itself in the PC and peripherals industries.

The computer cables and assembly sector, which takes up more than 80 percent of global turnout, is piggybacking on the continued upswing in the computer and mass storage segments. USB and IEEE 1394 varieties will experience the fastest growth.

China contributes 20 percent to the world's supply of USB cables. Although overall sales declined slightly in recent months, makers are confident the setback is temporary and output will continue to expand.

For IEEE 1394, demand from video cameras, game players, PC peripherals and A/V equipment will drive R&D and production. The development of new models based on upgraded standards such as 1394c is also accelerating growth. Some companies have released units based on this version, and a few plan to explore it next year.

Supplier summary

Suppliers surveyed	22
Export sales	\$ 512.6mn
Export ratio	67%
OEM business	43%
Capacity utilized	78%
Annual R&D spending	\$235.2mn
Full-time employees	20,401